

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/577,974  
Source: IFWP  
Date Processed by STIC: 5/5-06

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IFWP

## RAW SEQUENCE LISTING

DATE: 05/15/2006

PATENT APPLICATION: US/10/577,974

TIME: 10:03:36

Input Set : A:\50318.012001.txt

Output Set: N:\CRF4\05152006\J577974.raw

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3 <110> APPLICANT: Ensoli, Barbara
4      Caputo, Antonella
5      Laus, Michele
6      Tondelli, Luisa
7      Sparnacci, Katia
8      Gaviolo, Riccardo
10 <120> TITLE OF INVENTION: USE OF MICROPARTICLES FOR ANTIGEN DELIVERY
12 <130> FILE REFERENCE: 50318/012001
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/577,974
C--> 14 <141> CURRENT FILING DATE: 2006-05-03
14 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/012421
15 <151> PRIOR FILING DATE: 2004-11-03
17 <150> PRIOR APPLICATION NUMBER: GB 0325624.5
18 <151> PRIOR FILING DATE: 2003-11-03
20 <160> NUMBER OF SEQ ID NOS: 55
22 <170> SOFTWARE: PatentIn version 3.3
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 309
26 <212> TYPE: DNA
27 <213> ORGANISM: Human immunodeficiency virus
30 <220> FEATURE:
31 <221> NAME/KEY: CDS
32 <222> LOCATION: (1)..(309)
34 <400> SEQUENCE: 1
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36 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
37 1          5          10          15
39 cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt      96
40 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
41          20          25          30
43 cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tac ggc      144
44 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
45          35          40          45
47 agg aag aag cgg aga cag cgt cga aga cct cct caa ggc agt cag act      192
48 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
49          50          55          60
51 cat caa gtt tct cta tca aag caa ccc acc tcc caa tcc cga ggg gac      240
52 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
53 65          70          75          80
55 ccg aca ggc ccg aag gaa cag aag aag aag gtg gag aga gag aca gag      288
56 Pro Thr Gly Pro Lys Glu Gln Lys Lys Lys Val Glu Arg Glu Thr Glu
57          85          90          95
59 aca gat ccg gtc cat cag tga      309

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60 Thr Asp Pro Val His Gln

61 100

64 &lt;210&gt; SEQ ID NO: 2

65 &lt;211&gt; LENGTH: 102

66 &lt;212&gt; TYPE: PRT

67 &lt;213&gt; ORGANISM: Human immunodeficiency virus

69 &lt;400&gt; SEQUENCE: 2

71 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser

72 1 5 10 15

75 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe

76 20 25 30

79 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly

80 35 40 45

83 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr

84 50 55 60

87 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp

88 65 70 75 80

91 Pro Thr Gly Pro Lys Glu Gln Lys Lys Lys Val Glu Arg Glu Thr Glu

92 85 90 95

95 Thr Asp Pro Val His Gln

96 100

99 &lt;210&gt; SEQ ID NO: 3

100 &lt;211&gt; LENGTH: 261

101 &lt;212&gt; TYPE: DNA

102 &lt;213&gt; ORGANISM: Human immunodeficiency virus

105 &lt;220&gt; FEATURE:

106 &lt;221&gt; NAME/KEY: CDS

107 &lt;222&gt; LOCATION: (1)..(261)

109 &lt;400&gt; SEQUENCE: 3

110 atg gag cca gta gat cct cgt cta gag ccc tgg aag cat cca gga agt 48

111 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser

112 1 5 10 15

114 cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96

115 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe

116 20 25 30

118 cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tac ggc 144

119 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly

120 35 40 45

122 agg aag aag cgg aga cag cgt cga aga cct cct caa ggc agt cag act 192

123 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr

124 50 55 60

126 cat caa gtt tct cta tca aag caa ccc acc tcc caa tcc cga ggg gac 240

127 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp

128 65 70 75 80

130 ccg aca ggc ccg aag gaa tag 261

131 Pro Thr Gly Pro Lys Glu

132 85

135 &lt;210&gt; SEQ ID NO: 4

136 &lt;211&gt; LENGTH: 86

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137 <212> TYPE: PRT
138 <213> ORGANISM: Human immunodeficiency virus
140 <400> SEQUENCE: 4
142 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
143 1 5 10 15
146 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
147 20 25 30
150 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
151 35 40 45
154 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
155 50 55 60
158 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
159 65 70 75 80
162 Pro Thr Gly Pro Lys Glu
163 85
166 <210> SEQ ID NO: 5
167 <211> LENGTH: 261
168 <212> TYPE: DNA
169 <213> ORGANISM: Human immunodeficiency virus
172 <220> FEATURE:
173 <221> NAME/KEY: CDS
174 <222> LOCATION: (1)..(261)
176 <400> SEQUENCE: 5
177 atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
178 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
179 1 5 10 15
181 cag cct aaa act gct ggt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
182 Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
183 20 25 30
185 cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
186 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
187 35 40 45
189 agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
190 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
191 50 55 60
193 cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
194 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
195 65 70 75 80
197 ccg aca ggc ccg aag gaa tag 261
198 Pro Thr Gly Pro Lys Glu
199 85
202 <210> SEQ ID NO: 6
203 <211> LENGTH: 86
204 <212> TYPE: PRT
205 <213> ORGANISM: Human immunodeficiency virus
207 <400> SEQUENCE: 6
209 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
210 1 5 10 15
213 Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe

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214          20          25          30
217 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
218          35          40          45
221 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
222          50          55          60
225 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
226 65          70          75          80
229 Pro Thr Gly Pro Lys Glu
230          85
233 <210> SEQ ID NO: 7
234 <211> LENGTH: 261
235 <212> TYPE: DNA
236 <213> ORGANISM: Human immunodeficiency virus
239 <220> FEATURE:
240 <221> NAME/KEY: CDS
241 <222> LOCATION: (1)..(261)
243 <400> SEQUENCE: 7
244 atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt      48
245 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
246 1          5          10          15
248 cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt      96
249 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
250          20          25          30
252 cat tgc caa gtt tgt ttc ata aca gct gcc tta ggc atc tcc tat ggc      144
253 His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
254          35          40          45
256 agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act      192
257 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
258          50          55          60
260 cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac      240
261 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
262 65          70          75          80
264 ccg aca ggc ccg aag gaa tag      261
265 Pro Thr Gly Pro Lys Glu
266          85
269 <210> SEQ ID NO: 8
270 <211> LENGTH: 86
271 <212> TYPE: PRT
272 <213> ORGANISM: Human immunodeficiency virus
274 <400> SEQUENCE: 8
276 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
277 1          5          10          15
280 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
281          20          25          30
284 His Cys Gln Val Cys Phe Ile Thr Ala Ala Leu Gly Ile Ser Tyr Gly
285          35          40          45
288 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
289          50          55          60
292 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp

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Input Set : A:\50318.012001.txt

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293 65              70              75              80
296 Pro Thr Gly Pro Lys Glu
297              85
300 <210> SEQ ID NO: 9
301 <211> LENGTH: 252
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303 <213> ORGANISM: Human immunodeficiency virus
306 <220> FEATURE:
307 <221> NAME/KEY: CDS
308 <222> LOCATION: (1)..(252)
310 <400> SEQUENCE: 9
311 atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt      48
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313 1              5              10              15
315 cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt      96
316 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
317              20              25              30
319 cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc      144
320 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
321              35              40              45
323 agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act      192
324 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
325              50              55              60
327 cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc      240
328 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
329 65              70              75              80
331 ccg aag gaa tag      252
332 Pro Lys Glu
336 <210> SEQ ID NO: 10
337 <211> LENGTH: 83
338 <212> TYPE: PRT
339 <213> ORGANISM: Human immunodeficiency virus
341 <400> SEQUENCE: 10
343 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
344 1              5              10              15
347 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
348              20              25              30
351 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
352              35              40              45
355 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
356              50              55              60
359 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
360 65              70              75              80
363 Pro Lys Glu
367 <210> SEQ ID NO: 11
368 <211> LENGTH: 252
369 <212> TYPE: DNA
370 <213> ORGANISM: Human immunodeficiency virus
373 <220> FEATURE:

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**VERIFICATION SUMMARY**

DATE: 05/15/2006

PATENT APPLICATION: US/10/577,974

TIME: 10:03:37

Input Set : A:\50318.012001.txt

Output Set: N:\CRF4\05152006\J577974.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date